AMENDMENTS TO THE CLAIMS

The following Listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method of producing particles comprising the steps of:

contacting a polymer, a wax and/or a lipid that is a solid at standard temperature and pressure with a supercritical fluid in the absence of any solvents to form a melt;

contacting the melt with a solution comprising a solute dissolved in a solvent that is at least partially soluble in the supercritical fluid to form a mass comprising:

a melt-rich fraction comprising the melt, a first portion of the supercritical fluid, and the solute, wherein the solute is in the form of solid particles that are dispersed in the melt; and

a supercritical fluid-rich fraction comprising a second portion of the supercritical fluid and the solvent; and

expanding the mass across a pressure drop into a collection vessel maintained above the boiling point of the solvent to ~~volatize~~ evaporate the solvent and flash the supercritical fluid into a gas and thus form composite particles comprising the polymer, wax and/or lipid and the solute.

Claims 2-3 (canceled)

Claim 4 (original): The method according to claim 1 wherein the polymer is a polysaccharide, polyester, polyether, polyanhydride, polyglycolide (PLGA), polylactic acid (PLA), polycaprolactone (PCL), polyethylene glycol (PEG), or polypeptide.

Claim 5 (original): The method according to claim 1 wherein the supercritical fluid is selected from the group consisting of carbon dioxide, nitrous oxide, dimethylether, C1-C6 alkane, C1-C6 alkene and alcohols.

Claim 6 (original): The method according to claim 1 wherein the solute is a biologically active substance selected from the group consisting of drugs, pharmaceuticals, therapeutic agents, medicinal agents, viral materials, diagnostic aids, nutritional materials, proteins, peptides, antigens, enzymes, catalysts, nucleic acids and combinations thereof.

Claim 7 (original): The method according to claim 1 wherein the solvent is selected from the group consisting of alcohol, toluene, ethyl acetate, methyl chloride, methylene chloride, dimethyl sulfoxide (DMSO) and dimethyl formamide (DMF).

Claim 8 (original): The method according to claim 1 wherein the solute is present in the solution in an amount in greater than about 1 weight percent.

Claim 9 (original): The method according to claim 1 wherein the solute is present in the solution in an amount greater than about 10 weight percent.

Claim 10 (original): The method according to claim 1 wherein the solution further comprises a surfactant.

Claim 11 (original): The method according to claim 1 wherein the composite particles have an average diameter of from about 0.5 micrometers (μm) to about 15 micrometers (μm).

Claim 12 (canceled)

Claim 13 (currently amended): A method of producing particles comprising the steps of:

contacting a polymer, a wax and/or a lipid that is a solid at standard temperature and pressure with a supercritical fluid in the absence of any solvents to form a melt;

contacting the melt with a solution comprising a solute dissolved in a solvent that is at least partially soluble in the supercritical fluid to form a mass comprising:

a melt-rich fraction comprising the melt, a first portion of the supercritical fluid, and the solute, wherein the solute is in the form of solid particles that are dispersed in the melt; and

a supercritical fluid-rich fraction comprising a second portion of the supercritical fluid and the solvent; and

extracting the solvent from the supercritical fluid-rich fraction to form a solvent-free residual mass; and

expanding the solvent-free residual mass across a pressure drop into a collection vessel to ~~volatize~~ flash the supercritical fluid into a gas and thus form solid particles comprising the polymer, wax and/or lipid and the solute.

Claim 14 (original): The method according to claim 13 wherein the polymer is a polysaccharide, polyester, polyether, polyanhydride, polyglycolide (PLGA), polylactic acid (PLA), polycaprolactone (PCL), polyethylene glycol (PEG), or polypeptide.

Claim 15 (original): The method according to claim 13 wherein the supercritical fluid is selected from the group consisting of carbon dioxide, nitrous oxide, dimethylether, C1-C6 alkane, C1-C6 alkene and alcohols.

Claim 16 (original): The method according to claim 13 wherein the solute is a biologically active substance selected from the group consisting of drugs, pharmaceuticals, therapeutic agents, medicinal agents, viral materials, diagnostic aids, nutritional materials, proteins, peptides, antigens, enzymes, catalysts, nucleic acids and combinations thereof.

Claim 17 (original): The method according to claim 13 wherein the solvent is selected from the group consisting of alcohol, toluene, ethyl acetate, methyl chloride, methylene chloride, dimethyl sulfoxide (DMSO) and dimethyl formamide (DMF).

Claim 18 (original): The method according to claim 13 wherein the solute is present in the solution in an amount in greater than about 1 weight percent.

Claim 19 (original): The method according to claim 13 wherein the solute is present in the solution in an amount greater than about 10 weight percent.

Claim 20 (original): The method according to claim 13 wherein the solution further comprises a surfactant.

Claim 21 (original): The method according to claim 13 wherein the composite particles have an average diameter of from about 0.5 micrometers (μm) to about 15 micrometers (μm).

Claim 22-48 (canceled)